

**§ 73.1520 Operation for tests and maintenance.**

(a) Broadcast stations may be operated for tests and maintenance of their transmitting systems on their assigned frequencies using their licensed operating power and antennas during their authorized hours of operation without specific authorization from the FCC.

(b) Licensees of AM stations may operate for tests and maintenance during the hours from 12 midnight local time to local sunrise, if no interference is caused to other stations maintaining a regular operating schedule within such period. No AM station licensed for “daytime” or “specified hours” of operation may broadcast any regular or scheduled programs during this period of test and maintenance operation.

(c) Licensees of AM stations may obtain special antenna test authorizations, and operate under the provisions described in § 73.157, to operate with nighttime facilities during daytime hours in conducting directional antenna field strength and antenna proof of performance measurements.

[43 FR 32783, July 28, 1978, as amended at 45 FR 6401, Jan. 28, 1980]

**§ 73.1530 Portable test stations [Definition].**

A portable test station is one that is moved from place to place for making field strength and ground conductivity measurements, for selecting station transmitter sites, and conducting other specialized propagation tests. Portable test stations are not normally used while in motion, and may not be used for the transmission of programs intended to be received by the public.

[43 FR 32783, July 28, 1978]

**§ 73.1540 Carrier frequency measurements.**

(a) The carrier frequency of each AM and FM station and the visual carrier frequency and the difference between the visual carrier and the aural carrier or center frequency of each TV and Class A TV station shall be measured or determined as often as necessary to ensure that they are maintained within the prescribed tolerances.

(b) In measuring the carrier frequency, the licensee may use any

method or procedure that has sufficient precision to establish that the carrier frequency is within the prescribed departure limits.

(c) The primary standard of frequency for radio frequency measurements is the standard frequency maintained by the National Bureau of Standards or the standard signals of Stations WWV, WWVB, and WWVH of the National Bureau of Standards.

[43 FR 32783, July 28, 1978, as amended at 48 FR 44805, Sept. 30, 1983; 65 FR 30004, May 10, 2000]

**§ 73.1545 Carrier frequency departure tolerances.**

(a) *AM stations.* The departure of the carrier frequency for monophonic transmissions or center frequency for stereophonic transmissions may not exceed  $\pm 20$  Hz from the assigned frequency.

(b) *FM stations.* (1) The departure of the carrier or center frequency of an FM station with an authorized transmitter output power more than 10 watts may not exceed  $\pm 2000$  Hz from the assigned frequency.

(2) The departure of the carrier or center frequency of an FM station with an authorized transmitter output power of 10 watts or less may not exceed  $\pm 3000$  Hz from the assigned frequency.

(c) *TV stations.* (1) The departure of the visual carrier frequency of a TV station may not exceed  $\pm 1000$  Hz from the assigned visual carrier frequency.

(2) The departure of the aural carrier frequency of a TV station may not exceed  $\pm 1000$  Hz from the actual visual carrier frequency plus exactly 4.5 MHz.

(d) *International broadcast stations.* The departure of the carrier frequency of an International broadcast station may not exceed 0.0015% of the assigned frequency on which the station is transmitting.

(e) *Class A TV stations.* The departure of the carrier frequency of Class A TV stations may not exceed the values specified in § 74.761 of this chapter. Provided, however, Class A TV stations licensed to operate with a maximum effective radiated power greater than the value specified in their initial Class A

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TV station authorization must comply with paragraph (c) of this section.

[44 FR 58734, Oct. 11, 1979; 44 FR 64408, Nov. 7, 1979, as amended at 47 FR 13165, Mar. 29, 1982; 65 FR 30004, May 10, 2000]

### § 73.1560 Operating power and mode tolerances.

(a) *AM stations.* (1) Except as provided for in paragraph (d) of this section, the antenna input power of an AM station as determined by the procedures specified in § 73.51 must be maintained as near as is practicable to the authorized antenna input power and may not be less than 90% nor more than 105% of the authorized power.

(2) Whenever the transmitter of an AM station cannot be placed into the specified operating mode at the time required, transmissions of the station must be immediately terminated. However, if the radiated field at any bearing or elevation does not exceed that permitted for that time of day, operation in the mode with the lesser radiated field may continue under the notification procedures of paragraph (d) of this section.

(b) *FM stations.* Except as provided in paragraph (d) of this section, the transmitter output power of an FM station, with power output as determined by the procedures specified in § 73.267, which is authorized for output power more than 10 watts must be maintained as near as practicable to the authorized transmitter output power and may not be less than 90% nor more than 105% of the authorized power. FM stations operating with authorized transmitter output power of 10 watts or less, may operate at less than the authorized power, but not more than 105% of the authorized power.

(c) *TV stations.* (1) Except as provided in paragraph (d) of this section, the visual output power of a TV or Class A TV transmitter, as determined by the procedures specified in Sec. 73.664, must be maintained as near as is practicable to the authorized transmitter output power and may not be less than 80% nor more than 110% of the authorized power.

(2) The output power of the aural transmitter shall be maintained to provide an aural carrier ERP not to exceed 22% of the peak authorized visual ERP.

(3) The FCC may specify deviation from the power of tolerance requirements for subscription television operations to the extent it deems necessary to permit proper operation.

(d) *Reduced power operation.* In the event it becomes technically impossible to operate at authorized power, a broadcast station may operate at reduced power for a period of not more than 30 days without specific authority from the FCC. If operation at reduced power will exceed 10 consecutive days, notification must be made to the FCC in Washington, DC, Attention: Audio Services Division (radio) or Video Services Division (television), Mass Media Bureau, not later than the 10th day of the lower power operation. In the event that normal power is restored within the 30 day period, the licensee must notify the FCC of the date that normal operation was restored. If causes beyond the control of the licensee prevent restoration of the authorized power within 30 days, a request for Special Temporary Authority (see § 73.1635) must be made to the FCC in Washington, DC for additional time as may be necessary.

[44 FR 58734, Oct. 11, 1979, as amended at 49 FR 22093, May 25, 1984; 49 FR 29069, July 18, 1984; 49 FR 47610, Dec. 6, 1984; 50 FR 26568, June 27, 1985; 50 FR 40015, Oct. 1, 1985; 63 FR 33877, June 22, 1998; 65 FR 30004, May 10, 2000]

### § 73.1570 Modulation levels: AM, FM, TV and Class A TV aural.

(a) The percentage of modulation is to be maintained at as high a level as is consistent with good quality of transmission and good broadcast service, with maximum levels not to exceed the values specified in paragraph (b). Generally, the modulation should not be less than 85% on peaks of frequent recurrence, but where lower modulation levels may be required to avoid objectionable loudness or to maintain the dynamic range of the program material, the degree of modulation may be reduced to whatever level is necessary for this purpose, even though under such circumstances, the level may be substantially less than that which produces peaks of frequent recurrence at a level of 85%.

(b) Maximum modulation levels must meet the following limitations: